

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated January 11, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1 – 13 stand for consideration, wherein claims 1 and 5-13 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention.

Additional Amendments

The specification and abstract are being amended to correct formal errors and to better disclose and describe the features of the present invention as claimed. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

Claims 1, 2, 4, 5, 8 and 13 were rejected under 35 USC §103(a) as being unpatentable over Iijima et al. (US Patent No. 6,124,905).

Claim 3 was rejected under 35 USC §103(a) as being unpatentable over Iijima '905 in view of Iijima et al. (US Patent No. 6,359,668).

Further, claims 6, 7 and 10-12 were rejected under 35 USC §103(a) as being unpatentable over Iijima '905 in view of Kuroiwa et al. (US Patent No. 6,747,716).

Lastly, claim 9 was rejected under 35 USC §103(a) as being unpatentable over Iijima '905 in view of Satoh et al. (US Patent No. 5,847,795). Applicants have carefully considered the above-outlined rejections, and hereby respectfully traverse.

The present invention as now recited in claim 1 is directed to a liquid crystal display device, comprising a transmissive type liquid crystal display panel which sandwiches a liquid crystal layer between a pair of substrates; and a backlight arranged at a back face of the liquid crystal display panel and has a light source and a reflector. The liquid crystal display device is capable of performing as a transmissive display which uses light from the light source and

as a reflective display which uses external light incident from a front face side of the liquid crystal display panel by reflecting the external light on the reflector. The improvement of the present invention is characterized in that a polarizer is arranged between the back-face-side substrate of the pair of substrates and the backlight, with the polarizer being formed to absorb polarized light having a predetermined polarization direction, and at least two or more light diffusion layers are arranged between the back-face-side substrate out of the pair of substrates and the reflector of the backlight.

As recited in claim 5, the present invention is directed to a liquid crystal display device comprising a transmissive type liquid crystal display panel which sandwiches a liquid crystal layer between a pair of substrates, a light source, a light guide body which is arranged at a back face side of the liquid crystal display panel and on which light from the light source is incident, and a reflector which is arranged at a back face of the light guide body. The liquid crystal display device is capable of performing as a transmissive display which uses light from the light source and as a reflective display which uses external light incident from a front face side of the liquid crystal display panel by reflecting the external light on the reflector. The improvement of the present invention is characterized in that a polarizer is arranged between the back-face-side substrate of the pair of substrates and the backlight, with the polarizer being formed to absorb polarized light having a predetermined polarization direction, and at least two or more light diffusion layers are arranged between the back-face-side substrate out of the pair of substrates and the light guide body.

Among the main features of the present invention, a polarizer is arranged between the back-face-side substrate of the pair of substrates and the backlight, wherein the polarizer is formed to absorb polarized light having a predetermined polarization direction. This means that the polarizer is specifically an absorbent-type polarizer.

In contrast, the primary reference of Iijima '905 is specifically directed to using reflective-type polarizers. In particular, Iijima '905 uses a reflective polarizer 160 as a lower polarizer (see Figures 1-11). The use of a reflective polarizer is a key aspect of the structure and operation of the mechanism disclosed in Iijima '905. Even more, other elements of the mechanism of Iijima '905 are dependent on the use of a reflective polarizer. For example, the light exit angle control means (see Figure 12) requires the use of a reflective polarizer in order to increase contrast (see col. 8, lines 36-40).

Applicants will point out that the use of a reflective polarizer as a lower polarizer would be inconsistent with the structure and operation of the present invention. As such,

Iijima '905 cannot be cited against the present invention as claimed since this reference embodies a teaching inconsistent with or at worst contradictory to that of the present invention. It is well established in the law by the CAFC that the citation of references whose teachings are inconsistent with the claimed invention is improper. Thus, Iijima '905 by itself cannot render the present invention obvious to one of skill in the art.

The remaining secondary references of Iijima '668, Kuroiwa '716 and Satoh '795 are all cited for showing features recited in the dependent claims. None of these references, either by themselves or in combination, provides any teaching or suggestion to make up for the deficiencies in Iijima '905 or to motivate their combination so as to embody all the features of the claimed invention. Consequently, all the cited references cannot render the present invention as a whole obvious to one of skill in the art.

Conclusion

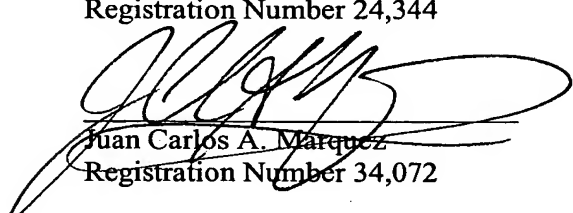
In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to

contact the Applicant's undersigned representative at the address and telephone number indicated below.

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SUBSTITUTE ABSTRACT

In a liquid crystal display device capable of performing as both a transmissive display and a reflective display using a transmissive type liquid crystal display panel, the influence attributed to a shade as viewed from the oblique direction can be reduced so that favorable visibility can be ensured. In a liquid crystal display device including a transmissive type liquid crystal display panel which sandwiches a liquid crystal layer between a pair of substrates and a backlight which is arranged at a back face of the liquid crystal display panel and has a light source and a reflector, wherein the device is capable of performing as a transmissive display using light from the light source and as a reflective display using external light incident from a front face side of the liquid crystal display panel by reflecting the external light on the reflector, at least two or more light diffusion layers are arranged between the back-face-side substrate out of the pair of substrates and the reflector of the backlight.